USER MANUAL

S11 Zen

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HEARTWAY

HEARTWAY MEDICAL PRODUCTS CO., LTD.

NO. 6, ROAD 25, TAICHUNG INDUSTRIAL PARK,
TAICHUNG. TAIWAN R.O.C.408

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SAFETY INSTRUCTION

◆ **General**

Never use electronic radio transmitters such as walkie-talkies, or cellular phones.	Make sure that there are no obstacles behind you while reserving your scooter.
Do not make a sharp turn or a sudden stop while riding your scooter.	Do not rider your scooter in traffic.
Do not attempt to climb curbs greater than limitation show on Technical Specification	Do not leave your hands and legs off the scooter when driving.

Do not rider your scooter during snow in order to avoid accident on slippery road.	Do not allow unsupervised children to play near this equipment while the batteries are charging.
Never operate the scooter while you are under the influence of alcohol.	

◆ **Warning – Don't operate your scooter for the first time without completely reading and understanding this user manual.**

1. Don't operate scooter on public streets and roadways. Be aware that it may be difficult for traffic to see you when you are seated on the scooter. Obey all local pedestrian traffic rules. Wait until your path is clear of traffic, and then proceed with extreme cautions.
2. To prevent injury to yourself or others, always ensure that the power is switched off when getting on or off of the scooter.
3. Always check that the drive wheels are engaged (drive mode) before driving. Do not switch off the power when the scooter is still moving forward. This will bring the chair to an extremely abrupt stop.
4. Do not use this product or any available optional equipment without first completely reading and understanding these instructions. If you are unable to understand the warnings, cautions or instructions, contact a healthcare professional, the dealers or technical supports before attempting to use this equipment, otherwise, injury or damage may occur.
5. There are certain situations, including some medical conditions, where the scooter user will need to practice operating the scooter in the presence of a trained attendant. A trained attendant can be defined as a family member or care professional especially trained in assisting a scooter user in various daily living activities. Consult with your physician if you are taking any medication that may affect your ability to operate your scooter safely.

6. Do not attempt to lift or move a power scooter by any of its removable parts including the armrests, seats or shrouds. Personal injury and damage to the power chair may result.
7. Never try to use your scooter beyond its limitations as described in this manual.
8. Please do not sit on your scooter while it is in a moving vehicle.
9. Keep your hands away from the wheels (tires) while driving scooters. Be aware that loose fitting clothing can become caught in the drive tires.
10. Consult your physician if you are taking prescribed medication or if you have any certain physical limitations. Some medications and limitations may impair your ability to operate scooters in a safe manner.
11. Be aware when the drive mode is unlocked or locked.
12. Don’t remove anti-tipper if there is any-tipper equipped with the scooter.
13. Contact with tools can cause electrical shock and do not connect an extension cord to the AC/DC converter or the battery charger.
14. Do not attempt to lift or move your scooter by any of its removal parts, such as the armrests, seats, or shroud.
15. When climbing an incline, don’t drive at an angle up the face of the incline. Drive your scooter straight up the incline. This greatly reduces the possibility of a tip or a fall.
16. Don’t climb a slope steeper than the scooter’s limitation.
17. Don’t attempt to have your scooter proceed backward down any step, curb or other obstacle. This may cause the scooter to fall or tip.
18. Always reduce your speed and maintain a stable center of gravity when cornering sharply. Don’t corner sharply when driving scooters at higher speeds.
19. Operating in rain, snow, salt, mist conditions and on icy or slippery surfaces may have an adverse affect on the electrical system.
20. Never sit on your scooter when it is being used in connection with any type of lift or elevation product. Your scooter is not designed with such use in mind and any damage or injury incurred from such use is not the responsibility of Heartway.

◆ Modifications

Heartway Medical Product has designed and engineered power scooters to provide maximum utility. However, under no circumstances should you modify, add, remove, or disable any part or function of your power scooter. Personal injury and damage to the power chair may result.

1. Do not modify your power scooter in any way not authorized by Heartway. Do not use accessories if they have not been tested or approved for Heartway products.
2. Get to know the feel of your power scooter and its capabilities. Heartway recommends that you perform a safety check before each use to make sure your scooter operates safely.

◆ Inspections prior to using your power scooter:

1. Please check all electrical connections and make sure they are tight and not corroded.
2. Please check all harness connections and make sure they are secured properly.
3. Please check the brakes.

◆ Weight limitation.

1. Please refer to the specifications table for weight capacity information. Power scooter is rated for a maximum weight capacity.
2. Stay within the specified weight capacity for your scooter. Exceeding the weight capacity voids your warranty. Heartway will not be held responsible for injuries or property damage resulting from failure to observe weight limitations.
3. Don’t carry passengers on scooters. Carrying passengers on scooter may affect the center of gravity, resulting in a tip or a fall.

◆ Temperature

1. Some of the parts of the power scooter are susceptible to change in temperature. The controller can only operate in temperature that ranges between -25℃ ~ 50℃.
2. At extreme low temperatures, the batteries may freeze, and your power scooter may not be able to operate. In extreme high temperatures, it may operate at slower speeds due to a safety feature of the controller that prevents damage to the motors and other electrical components.

ELECTROMAGNETIC INTERFERENCE (EMI)

The rapid development of electronics, especially in the area of communications, has saturated our environment with electromagnetic (EM) radio waves that are emitted by television, radio and communication signals. These EM wave are invisible and their strength increases as one approach the source. All electrical conductors act as antennas to the EM signals and, to varying degrees, all power wheelchairs and scooters are susceptible to electromagnetic interference (EMI). The interference could result in abnormal, unintentional movement and/or erratic control of the vehicle. The United States Food and drug Administration (FDA) suggests that the following statement be incorporated to the user's manual for all power scooter like the **S11**. Power scooters may as susceptible to electromagnetic interference (EMI), which is interfering electromagnetic energy emitted from sources such as radio stations, TV stations, amateur radio (HAN) transmitter, two-way radios, cellular phones and alarm systems of shops. The interference (from radio wave sources) can cause the power scooter to release its brakes, move by itself or move in unintended directions. It can also permanently damage the powered scooter's control system. The intensity of the EM energy can be measured in volts per meter (V/m).Each powered scooter can resist EMI up to a certain intensity. This is called "immunity level". The higher the immunity level the greater the protection. At this time, current technology is capable of providing at least 20 V/m of immunity level, which would provide useful protection against common sources of radiated EMI.

Following the warnings listed below should reduce the chance of unintended brake release or powered scooter movement that could result in serious injury:

1. Do not turn on hand-held personal communication devices such as citizens band (CB) radios and cellular phones while the powered scooter is turned on.
2. Be aware of nearby transmitters such as radio or TV stations and try to avoid coming close to them.
3. If unintended movement or brake release occurs, turn the powered scooter off as soon as it is safe.
4. Be aware that adding accessories or components, or modifying the powered scooter, may make it more susceptible to interference from radio wave sources (Note: It is difficult to evaluate the effect on the overall immunity of the powered scooter).
5. Report all incidents of unintended movement or brake release to the powered scooter manufacturer, and note whether there is a radio wave source nearby.

TURN OFF YOUR POWERED SCOOTER AS SOON AS POSSIBLE WHEN EXPERIENCING THE FOLLOWING:

- Unintentional scooter movements
- Unintended or uncontrollable direction.
- Unexpected brake release

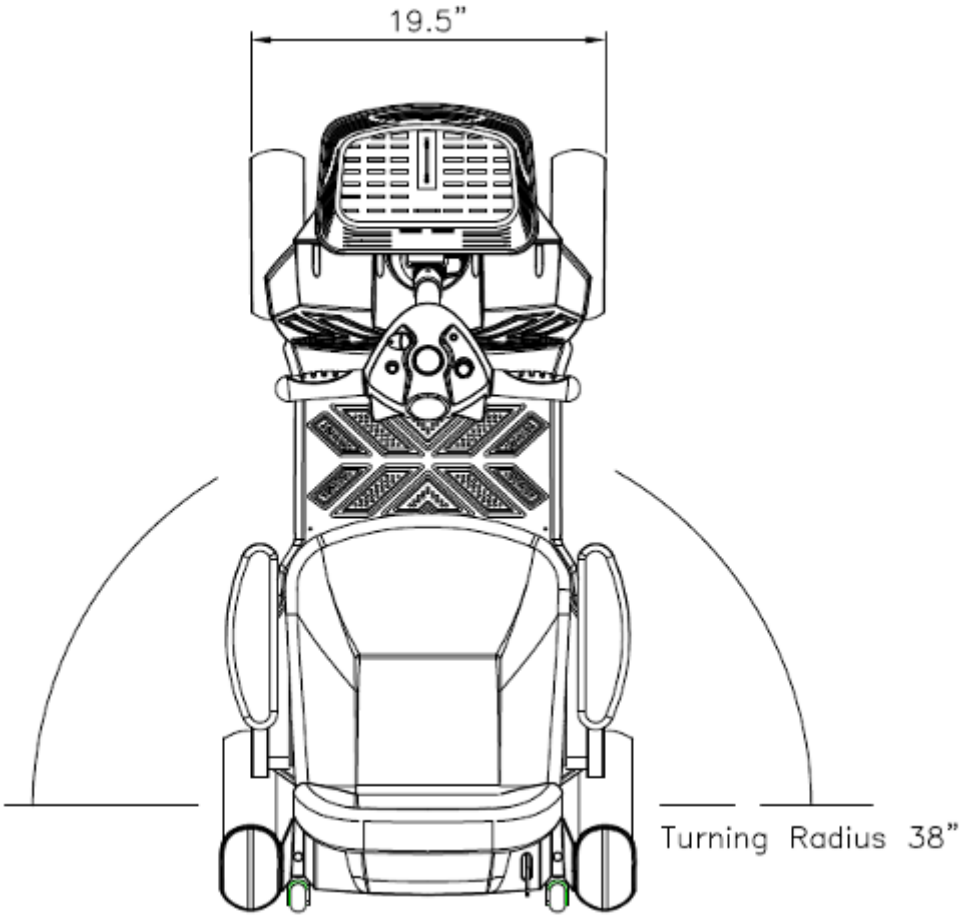
The FDA has written to the manufacturers of power scooters asking them to test new products to be sure they provide a reasonable degree of immunity against EMI. The FDA requires that a powered wheelchair should have an immunity level at least 20 V/m, which provides a reasonable degree of protection against more common sources of EMI. The higher the immunity level the greater the protection. Your powered scooter has an immunity level of 20 V/m which should protect against common sources of EMI. Warning: The scooter itself can disturb the performance of the electromagnetic fields such as emitted by alarm systems of shops.

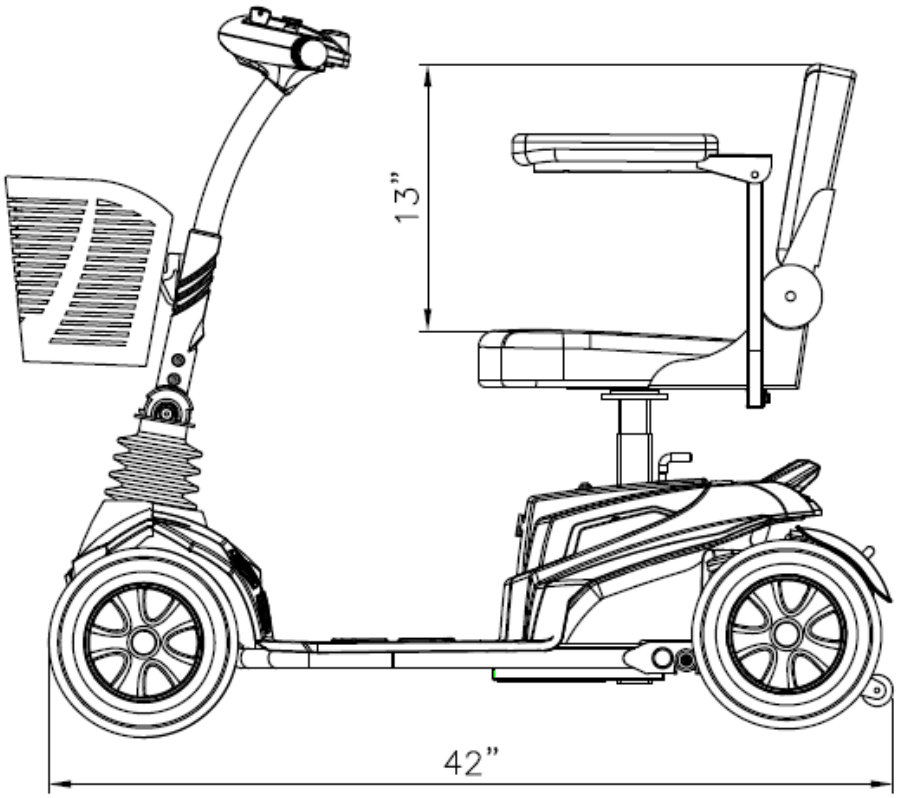
TECHNICAL SPECIFICATIONS

S11

MODEL	S11
WEIGHT CAPACITY	120kgs(265 lbs)
SEAT: TYPE/SIZE	16" can adjust to 18"
DRIVE WHEEL	240mmx75mm(9.5"x3")
FRONT CASTER (WHEEL)	240mmx75mm(9.5"x3")
REAR CASTER (ANTI-TIPPER)	Option
MAX SPEED	8KPH(5MPH)
BATTERY SPECIFICATIONS	12V 22Ah x 2pcs
BATTERY RANGE	20km (13 miles)
CHARGER TYPE	2Amp,Off Board120/240 Volt, 50/60 Hz
CONTROLLER TYPE	P&G S-Drive 70Amp
MOTOR TYPE	4400rpm 400W 22:1
WEIGHT: W/ BATTERY	58kgs(127.6 lbs)
WEIGHT: W/O BATTERY	48kgs(105lbs)
TURNING RADIUS	980mm (38”)
SUSPENSION	Rear
LENGTH	1070mm
WIDTH	580mm
HEIGHT	915mm
SEAT WIDTH	410mm
SEAT HEIGHT	400mm
SEAT DEPTH	410mm
BACK HEIGHT	350mm
WHEEL BASE	815mm
GROUND CLEARANCE	70mm
LEG ROOM	300mm
SAFE CLIMBING ANGLE	10°

. PRODUCT DIMENSION





ADJUSTMENT

It is very easy to assemble your S33 scooter. Please follow the procedure below.

Tiller Positioning:

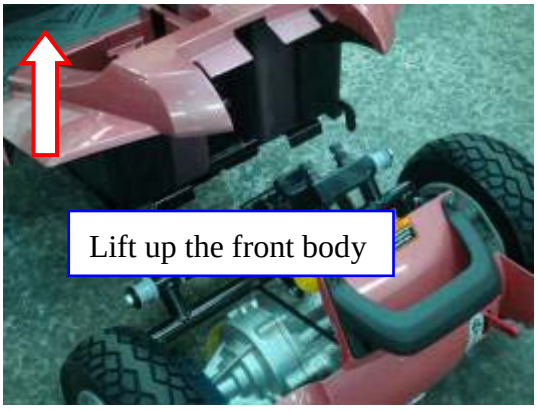
Loosen the quick release lever, fold the tiller up to vertical position and tighten the quick release lever. If you want to adjust the tiller angle, you have to lift the tiller upper to make sure the stopper go into the groove by releasing the quick release lever.

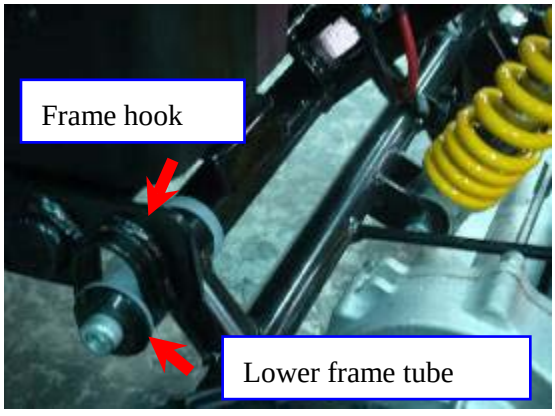
To adjust the width of the Arm-rest:

Loosen the tension fixing nuts and adjust the width to your seating comfort.

Assembling the rear part:

- ⇨ Please tilt the rear part of scooter backwards at approximately 45 degree.
- ⇨ Lift the front body and catch the lower frame tube with the frame hooks properly at the proper position before combing the rear part and front part.
- ⇨ Please assembly the rear part and front part carefully in order not to scratch the cover.





Easy-to-dismantle

S11 power scooter has carbon steel frame and can be easily dismantled to fit in the car for transportation. It also has easy to use controls and adjustable tiller positioning.

- ⇨ Distinctive stylish lightweight scooter
- ⇨ Easy to use controls
- ⇨ Sturdy Front basket
- ⇨ Adjustable tiller positioning
- ⇨ Easy to remove the battery pack
- ⇨ Dismantles for transporting in a car

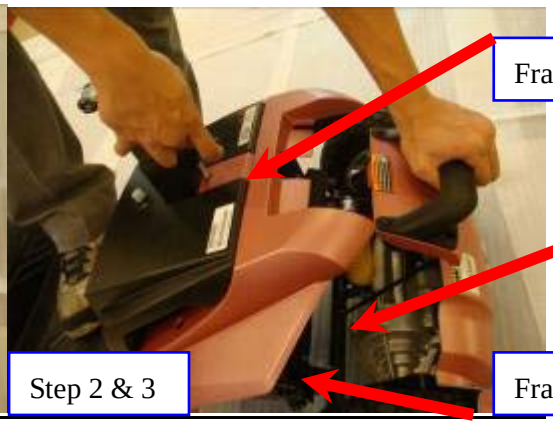
Note:

- ⇨ The weight of the front body frame is 21kg so for safety purpose, do not carry this part by oneself.
- ⇨ The mirror will be an optional accessory.

Assembly

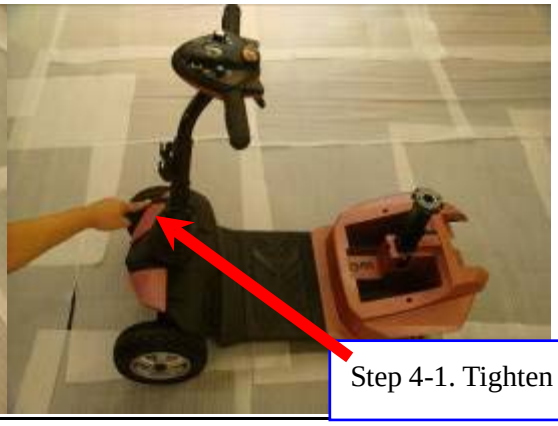
1) Tilt the rear section slightly back on the anti-tip wheel while combining the front & rear sections.
2) Please use the frame release lever to lift the front section as aligning and combining the frame hooks of the front section with the lower frame tube.
3) Lower the front section completely once the frame hooks are over the lower frame tube, which will engage the frame lock-up.
4) Raise the tiller and tighten the quick release lever completely.
5) Put the battery pack back properly.
6) Reinstall the seat and rotate it until it is secured into proper position.

Step 1



Step 2 & 3

Step 4



Step 4-1. Tighten the quick release lever

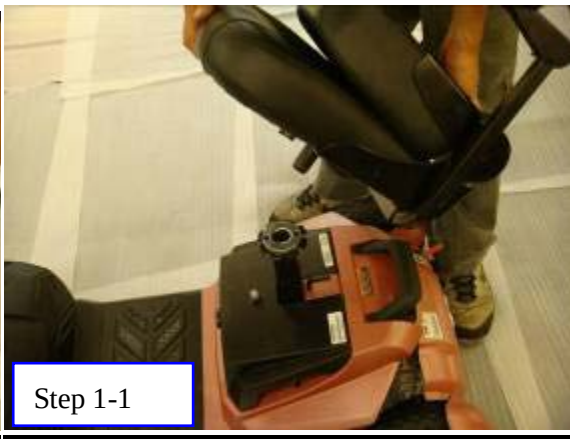
Step 5

Step 6

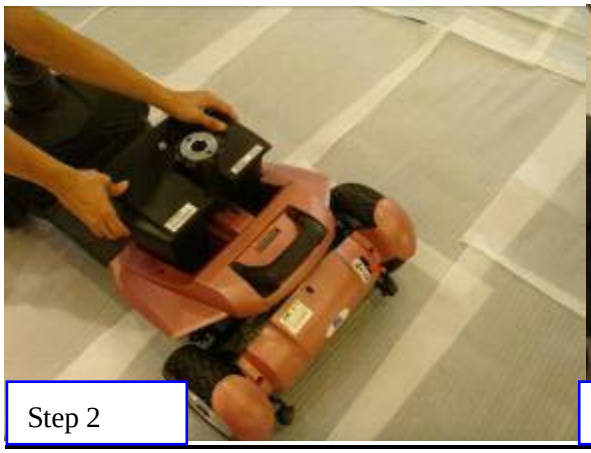
Disassembly

1) Remove the seat by lifting it straight up and off of the scooter. If there is any resistances encountered when removing the seat, please unfasten the seat rotation knob and swivel the seat back and forth while lifting up on the seat.
2) Remove the battery back from the scooter carefully.
3) Lift up on the frame release lever until the frame hooks are no longer resting on the frame tubes and then carefully and slowly separate these two sections of scooter.
4) Put the tiller at the lower position by unfastening the quick release lever.

Step 1



Step 1-1



Step 2

Step 3

Step 4

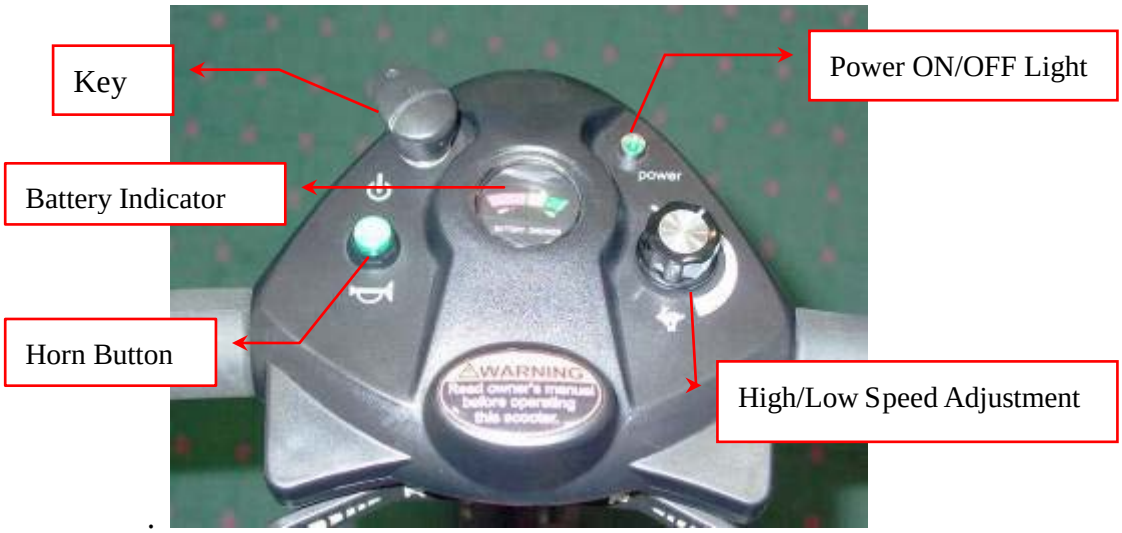
Step 4-1

. OPERATION OF CONTROL PANEL

The power scooter is simple to operate. However, we recommend that you read carefully the following instructions to become familiarized with your new vehicle.

A Word of Caution:

Before you turn the power on, always be aware of the environment that surrounds you to select your desired speed. For indoor environments we recommend that you select the slowest speed setting. For outdoor operation of this vehicle we recommend that you select a speed that is comfortable for you to control it safely.
The following steps are required to operate your vehicle safely with the controller.



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Button functions

1. Battery Indicator: When your scooter is switched on, the needle on the meter will move across the scale from the left 'red' sector towards the 'green' sector, indicating the state of charge in your batteries. As the power is used up in your batteries, the needle will slowly towards the 'red' sector indicating the state of charge at that precise time. When the needle is fully over to the right, the batteries are fully charged. When the needle falls towards the red sector, your batteries are losing power, but you will still have power to spare. When the needle falls into the red sector, your batteries are low in power and need to be recharged. It is wise to recharge your batteries when the needle enters the red zone (see Batteries and Battery Charging section of this manual).

2. High/Low Speed Adjustment: This allows you to pre-select your desired speed. The adjuster is proportional to speed and can be set anywhere between minimum and maximum. Turn the adjuster knob counter-clockwise to minimum for a very gentle operation, and clockwise towards maximum to increase your speed.

3. Power ON/OFF Light: The light will turn on if you insert the key. The light will turn off if you take out the key.
4. Horn button: Press this button to sound the horn.(Easy operation for left hand or right hand)

Driving:

A) Controller ON/OFF Switch

Insert the key to power on the scooter (Remove the key to power off). Swing the finger lever control forward or backward to control the driving direction of the scooter (The finger lever control is located at both sides of the controller and the returning of the finger lever control to its neutral position,(center), will reduce the speed and stop the vehicle by automatically applying the electro-magnetic brakes.

Finger Lever Control

B) Speed Control

Turn the adjuster knob clockwise towards maximum to increase your speed, and counter-clockwise toward minimum to slow down your speed.

C) Finger Lever Control

The finger lever control can also control the speed of your vehicle. The deeper you press on the finger lever (forward / backward), the faster the vehicle will go.

Notes:

⇨ After inserting the key into controller ON/OFF port, the light of power ON/OFF will turn on for a few seconds during self-checking process.

⇨ When the vehicle is in operation, the surface of the charger will become slightly warm.

⇨ In case of emergency, let go of the finger lever control and the vehicle will come to a stop.

Control Panel Display

1. The control panel display is a multifunction visual display. It can provide a lot of information of the vehicle. When the needle falls into the red sector, your batteries are low on power and need to be recharged. It is wise to recharge your batteries when the needle enters the red zone. The remaining battery needle only goes lower when using the battery, regardless the battery voltage. The remaining battery meter needle goes higher only when recharging battery in progress.
2. System will power off when the battery voltage is lower than 21.0V.
3. System will be automatically power-off when the vehicle is not in use over 30 minutes. You need to remove the key and insert the key to restart the scooter.

Free-Wheeling:

1. The motors are designed to engage the electromagnetic brakes when the vehicle is not in use or when the power is OFF. They also have a manual feature that allows them to “free-wheel” so the scooter can be moved without turning it on. Free-wheeling is accomplished by adjusting the free-wheeling levers to the free-wheeling position.

Warning !

- ⇨ Never free-wheel your power scooter on a slope.
- ⇨ Never free-wheel the motors while operating your vehicle.
- ⇨ Always remember to engage the motors before turning the power ON.

Electromagnetic Brakes:

Your power scooter comes with Electromagnetic Brakes., i.e. an automatic magnetic disc safety brake which is also known as Fail-Safe brake. The electro-magnetic Brakes are automatic and work when the power scooter is ON but in a steady state (i.e. Wigwag is released to the neutral position), even when the scooter is on a slope. The Electromagnetic Brakes will also be set whenever the power scooter is OFF, but the motor levers are in the engaged (vertical) position.

Parking brake:

There is an automatic parking brake function included in the electromagnetic brake. The scooter will stop when the motor is engaged and the power switch is off or when the power switch is on and the wigwag is in the neutral position. If the scooter is in the free wheel mode (motor is disengaged), you can use the manual parking brake function by moving the engaging/disengaging lever back into the engaged position by an attendant.

Thermal Protection:

Your power scooter controller is equipped with a safety system called thermal rollback. A built-in circuit monitors the temperature of the controller and motor. In case of excessive heat of the controller and motor, the controller will cut-off the power to allow the electrical components to cool down. Although your power scooter will resume its normal speed when the temperature returns to a safe level, we recommend to wait for 5 minutes before restarting to allow the components to cool down.

Main Circuit Breaker:

The main circuit breaker reset button is located on the top of the battery box.

The main circuit breaker monitors the electric current drawn from the battery. It is a safety feature built in your power scooter for your extra safety. When the batteries and motor are heavily strained (e.g., from excessive loads), the main circuit breaker will trip to prevent damage to the motor and the electronics. If the circuit breaker trips, turn off the scooter and wait for approximately one minute and then depress the button to reset it. Then turn on the scooter, and continue normal operation. If the main circuit breaker continues to trip repeatedly, this indicates a fault so contact your authorized dealer.

BATTERY & CHARGING INTRUCTION

We recommend that you use deep-cycle batteries that are sealed and maintenance free for your power scooter. Both sealed lead-acid (SLA) and gel cell are deep-cycle batteries and are similar in performance. Deep-cycle batteries are specifically designed to provide power, drain down, and then accept a relatively quick recharge. Lead-acid batteries should be charged as often as possible.

Specification of the battery that we recommend for S11 is

Type:	Deep –cycle sealed lead-acid or gel cell
Size:	22AH
Voltage:	12V each
Amp Hours:	12 amp hours

Depending on the use, terrain and driving conditions, the batteries will provide a range of 20 km of travel. However, even if the power scooter is not in use, we recommend that the batteries are charged periodically.

Note: Do not use any automotive batteries. They are not designed to handle a long, deep discharge and also are unsafe for use in power scooter. The useful life of a battery is quite often a reflection of the care it receives.

2 AMP CHARGER

The battery charger takes the standard wall outlet voltage (alternating current) and converts it into VDC (direct current).The batteries use direct current to run your power scooter. When the batteries are fully charged, the amperage from the charger is almost at zero. This is how the charger maintains a charge but does not overcharge the battery.

Note 1: The batteries cannot be charged if they were discharged to nearly zero voltage.

CHARGING INSTRUCTIONS

To recharge the batteries, follow the steps below:

- ⇨ Place your power scooter close to a standard electrical wall outlet.
- ⇨ Remove your key to turn the power OFF
- ⇨ Slide the charger port door open.
- ⇨ Plug the XLR connector of the charger to the charger port.
- ⇨ Plug the other end of power cord into a standard wall outlet.
- ⇨ When charging is completed, battery capacity indicator is shown.
- ⇨ Disconnect the charger power cord from the wall outlet when the batteries are fully charged.

Recharge battery only when the key is in off position. When indicator is in low status, this confirms the battery needs recharging.

Note:

- ⇨ Always charge your batteries in well ventilated areas.
- ⇨ The charger is intended for indoor use only. Protect from moisture.
- ⇨ For maximum performance, it is recommended that you replace both batteries at the same time if the batteries are weak.
- ⇨ If the vehicle will not be used for a long period of time, arrange to have the batteries recharged at least once every month to avoid deterioration of the batteries..

According to the battery type and condition of the batteries, they usually can be fully charged in 4-10 hours. This will be indicated when the status light in the battery charger side panel turns green. Charging the battery longer than necessary will not harm the battery. We recommend that you charge the batteries for 8 to 10 hours after daily use.

SCOOTER MAINTENANCE & REPAIR

- Make sure to keep the controller clean while protecting it from rain or water. Never hose off your power scooter or place it in direct contact with water.
- Keep wheels free from lint, hair, sand and carpet fibers.
- Visually inspect the tire tread. If less than 1mm (1/32”), please have your tires replaced by your local dealer.
- All upholstery can be washed with warm water and mild soap. Occasionally check the seat and back for sagging, cuts and tears. Replace if necessary. Do not store your scooter in damp or humid conditions as this will lead to mildew and rapid deterioration of the upholstery parts.
- All moving mechanism will benefit from simple lubrication and inspection. Lubricate using petroleum jelly or light oil. Do not use too much oil, otherwise small drips could stain and damage carpets and furnishings etc. Always perform a general inspection of the tightness of all nuts and bolts.
- Inspect the state of the battery terminals every six months. Make sure that they are not corroded and the connections are tight. Periodically apply a thin film of petroleum jelly on the surface of terminals to guard against corrosion.

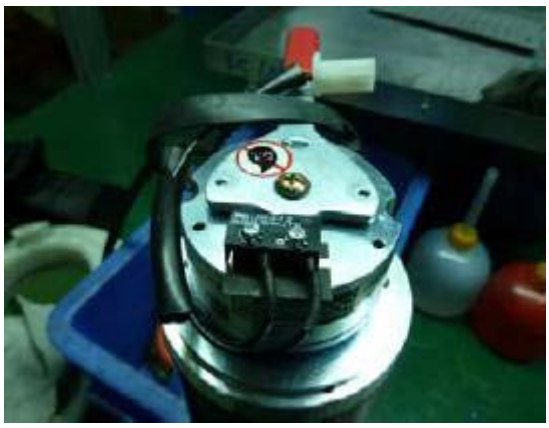
Your power scooter is designed for minimal maintenance. However, like any motorized vehicle it requires routine maintenance. To keep your power scooters or power wheelchairs for years of trouble-free operation, we recommend you follow the following maintenance checks as scheduled.

Maintenance Job	**Daily**	**Weekly**	**Monthly**	**Semi-Annual**
Electrical System				
✧ Battery meter – Inspect the battery meter to determine if batteries are needed to be re-charged	✓			
✧ Controller / Display panel – Make sure they are not frayed or have any exposed wiring			✓	
✧ Check all plug & wiring connections for firm condition			✓	
✧ Have the batteries been fully charged before the daily operation	✓			
✧ Are all holder and screws firmly fixed and safe?	✓			
✧ Are all electric lighting system (if applicable) in working order	✓			
Tyres & Wheels				

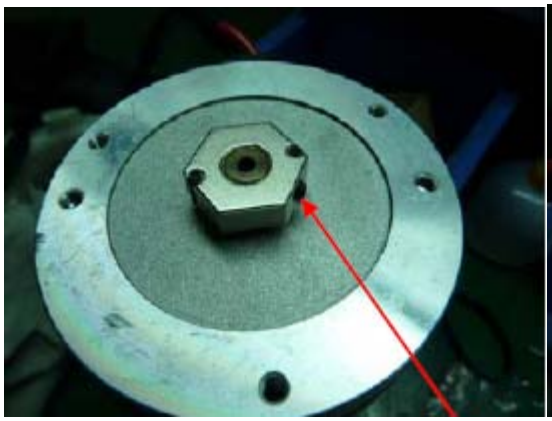
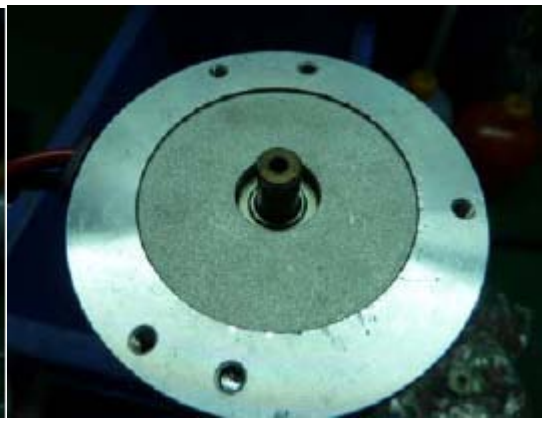
✧ Front & Rear wheels must be able to spin smoothly without any interference		✓		
✧ Rear & Front wheels must spin without wobbling			✓	
✧ Visually inspect the tire tread. If less than 1mm (1/32”), please have your tires replaced by your local dealer.			✓	
Others				
✧ Motor brushes. We recommend that your authorized dealer inspect the brushes every six-month if your power scooter or power wheelchair is not operating smoothly. If the inspection determines excessive motor bushes worn out, they must be replaced otherwise the motor damage will result.				✓

*How to remove the carbon brushes

Step 1: Remove the motor from the transaxle system and also the dust-proof cover properly.

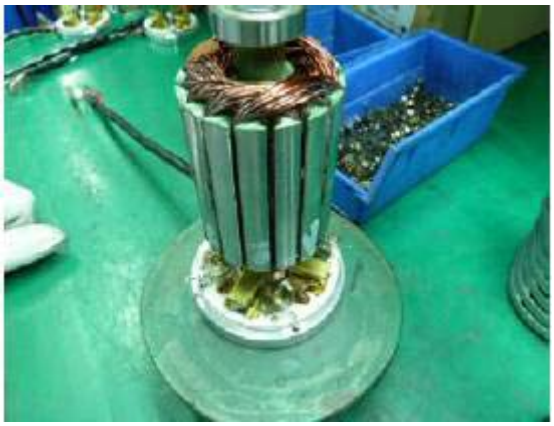


Step 2: Separate the brake plug from the connector and then witch the brake lever to the DRIVE. Loosen the screws properly

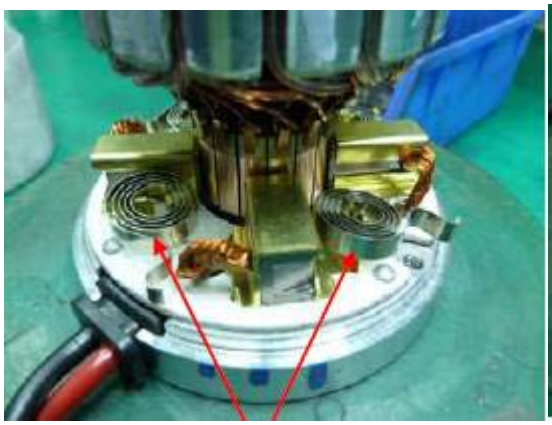



Step 3: Remove the brake device and hexagon nut properly

Step 4: Loosen two units of screws properly and then remove the front bracket.



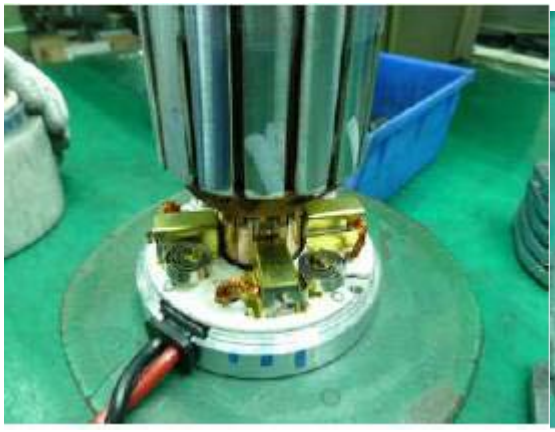
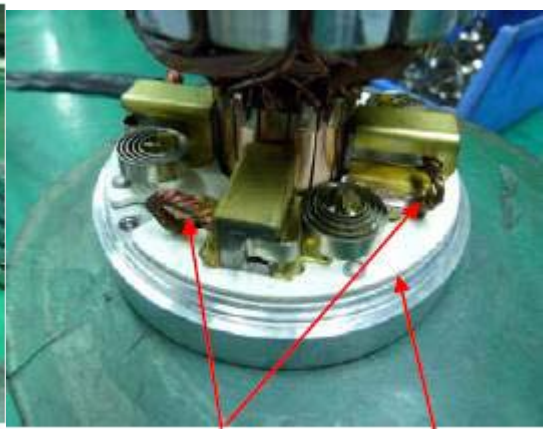
Step 5: Use the right hand to press the wire winding. Use the left hand to remove the outer tube from the wire winding.



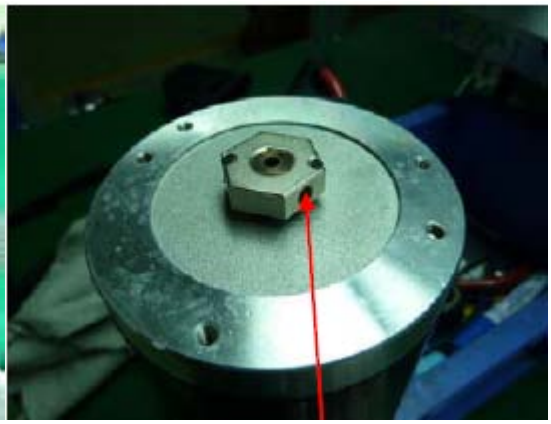
Step 6: Pull those 4 units of brush spring and then remove the wire winding

Step 7: Remove the brush springs and remove the wave-shaped pad

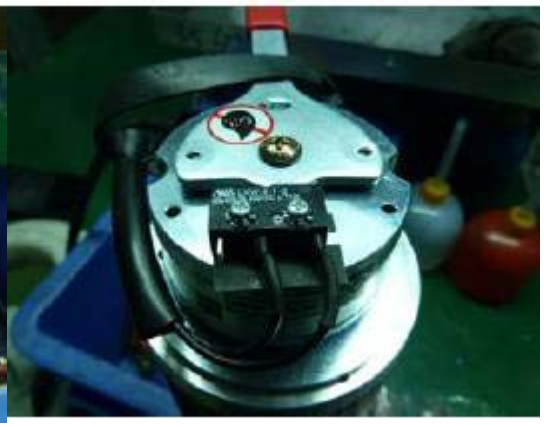
Step 8: Insert the waved-shape pad into the bearing hole. Insert 4 units of brush springs

Step 9: Put the wire winding back and make sure the wiring (see the red arrow) is tighten properly



Step 10: Put the outer tube back and put the front bracket back and tighten the hexagon nut.



Step 11: Reinstall the brake device and put the dust-proof cover back. Done !

TROUBLESHOOTING & FAULT REPAIR

P&G S-Drive 70 Amp controller: Your scooter is fitted with a S-Drive controller, which continuously monitors the operating conditions of your scooter. If it detects a problem it will indicate with error message by flashing light on the power ON/ OFF light. You must count the number of the flash, and see the list to check what kind of error has happened according to the number)

Number of Flashes	Fault	Impact on Scooter	Notes
1	Battery needs recharging	Will drive	Battery charge is running low. Recharge the batteries as soon as possible.
2	Battery voltage too low	Drive inhibited	Battery charge is empty. Recharge the batteries. If the scooter is left off for a few minutes, battery charge may recover sufficiently to allow driving for a short period of time.
3	Battery voltage too high	Drive inhibited	Battery charge is too high. If a charger is plugged in, unplug it or turn the Charge/Run switch to Run. Scooters powered by RHINO will charge the batteries when traveling down slopes or decelerating. Excessive charging in this manner may cause this fault. Turn the scooter power off and then back on again.
4	Current limit time out	Drive inhibited	The scooter has drawn too much current for too long, possibly because the motor has been over worked, jammed or stalled. Turn the scooter power off, leave for a few minutes, and then turn the power back on again. The controller has detected a shorted motor. Check the loom for shorts and check the motor. Contact your service agent.
5	Brake fault	Drive inhibited	Check that the park brake release lever is in the engaged position. The park brake coil or wiring is faulty. Check the park brake and wiring for open or short circuits. Contact your service agent.

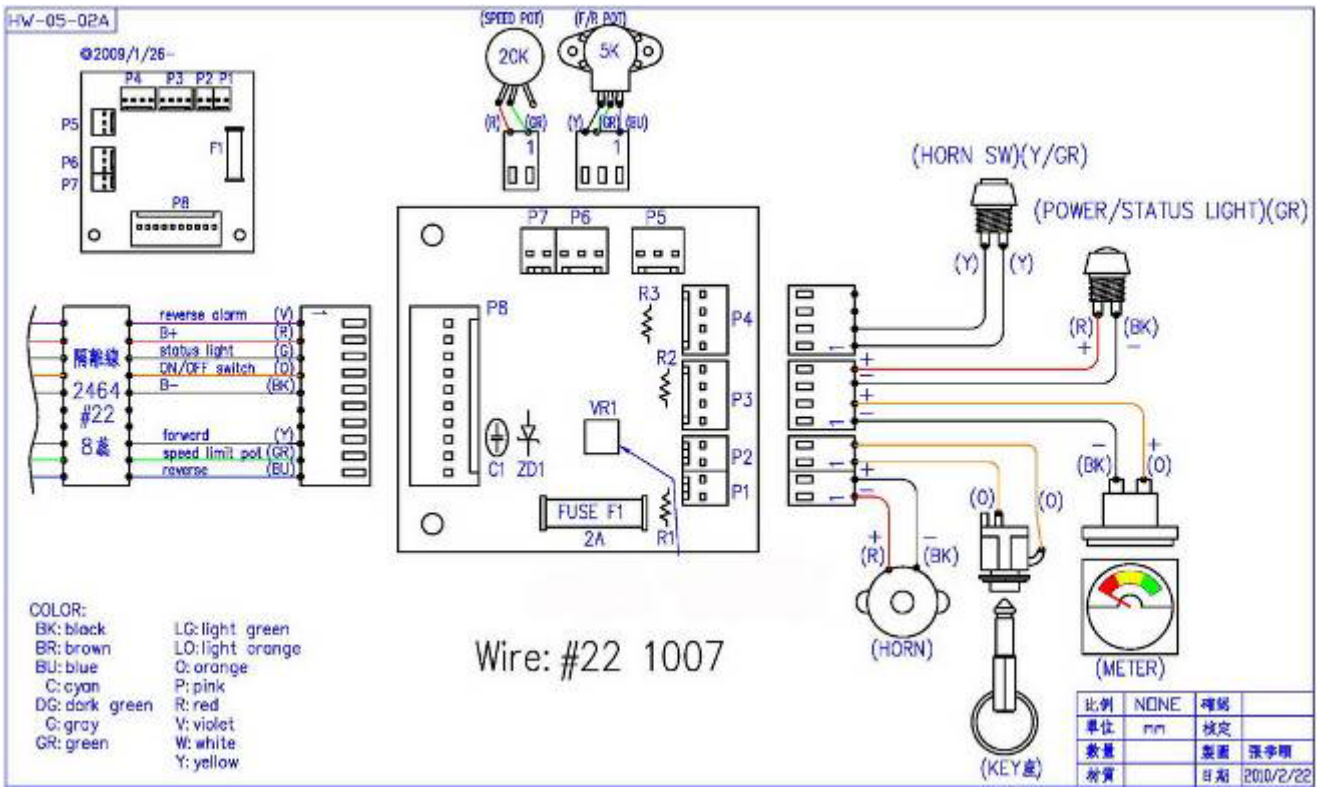
6	Out of Neutral at Power Up	Drive inhibited	Throttle is not in neutral position when tuning switch key on. Return throttle to neutral, turn power off and back on again. Throttle may need to be re-calibrated Check throttle wiring.
7	Speed Pot Error	Drive inhibited	The throttle or its wiring is faulty. Check for open or short circuits. Throttle may not be correctly set up. Contact your service agent.
8	Motor Volts Error	Drive inhibited	The motor or its wiring is faulty. Check for open or short circuits. Contact your service agent.
9	Other Internal Errors	Drive inhibited	Contact your service agent.
10	Push Too Fast fault	Drive inhibited	The scooter has been pushed faster than the programmed "Push Speed' parameter when the Park Brake Release function has been operated. The scooter has been pushed faster than the programmed "Rollaway Speed" parameter when the Park Brake has been mechanically released. Turn the scooter off and then back on again.

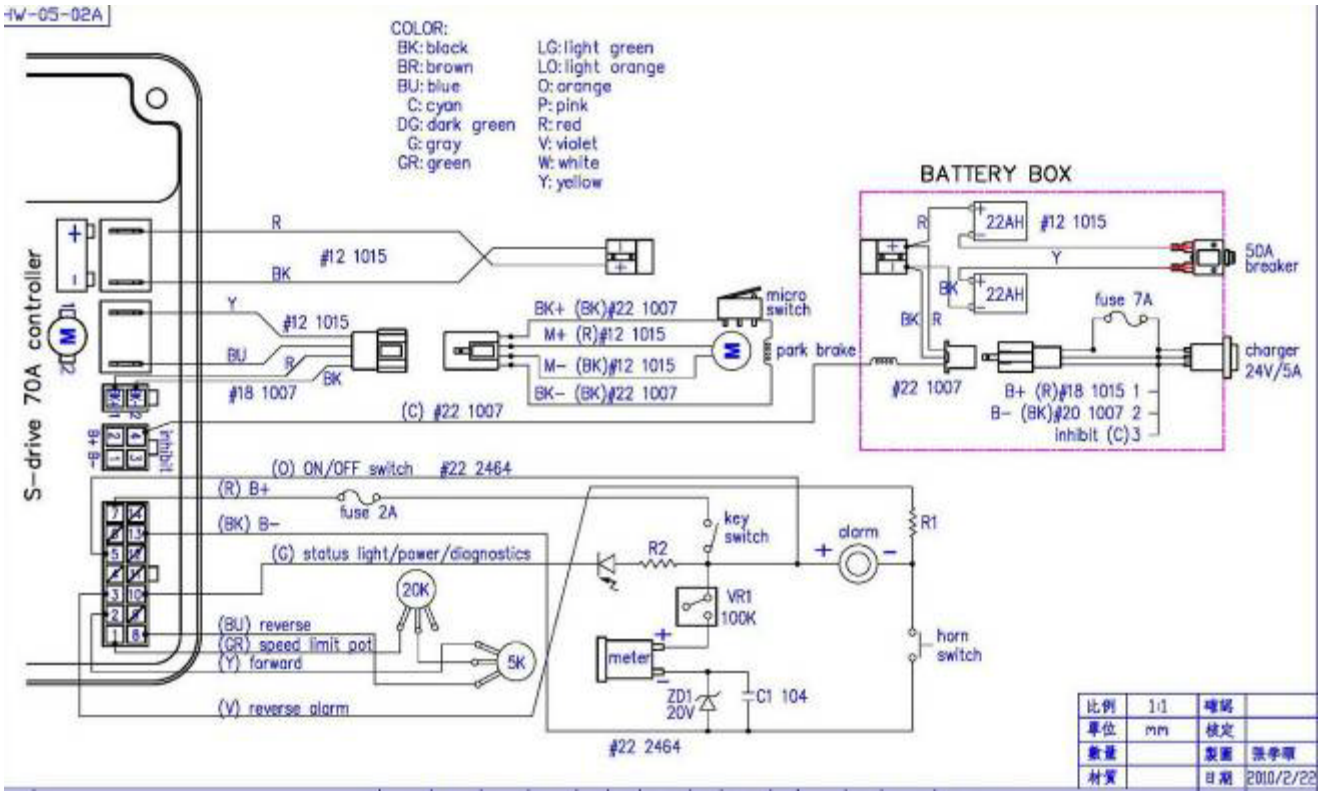
Note:
If you experience any technical problems, it is recommended that you check with your local dealer before attempting to troubleshoot on your own.

The following symptoms could indicate a serious problem with your power scooter. Contact your local dealer if any of the following arises:

1. Motor noise
2. Frayed harnesses
3. Cracked or broken connectors
4. Uneven wear on any of tires
5. Jerky motion
6. Pulling to one side
7. Bent or broken wheel assemblies
8. Does not power up
9. Powers up, but does not move

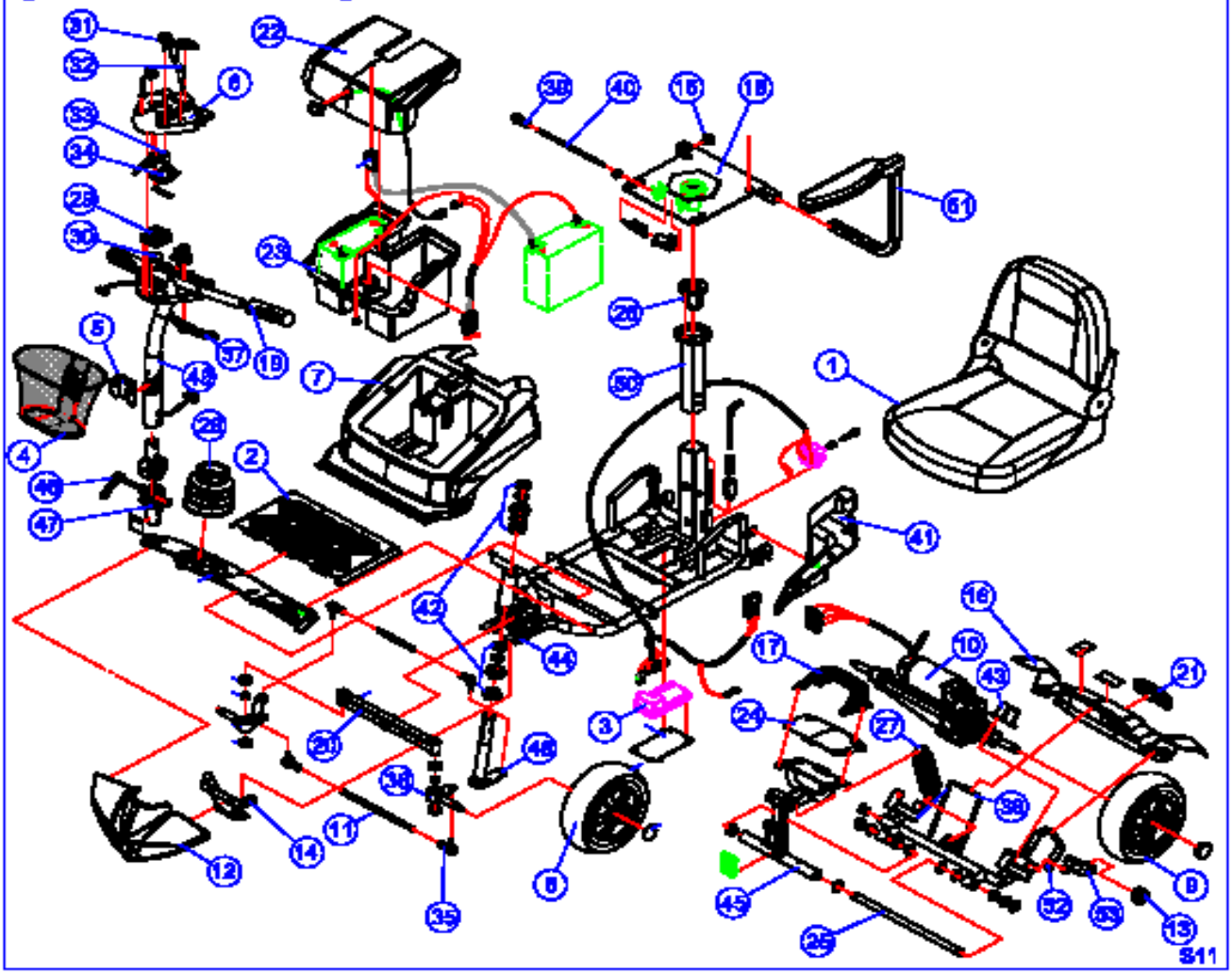
CIRCUIT DIAGRAM





BOM LIST DRAWING

1 SEAT	19 HANDEL GRIP	37 WIGWAG ASSY
2 MAT	20 CASTOR BRACKET	38 WELDED FRONT WHEEL AXLE
3 CONTROLLER	21 REFLECTOR	39 GRIP FOR RELEASE LEVER
4 BASKET	22 BATTERY COVER UPPER	40 SEIVEL SEAT RELEASE LEVER
5 BASKET BRACKET	23 BATTERY COVER DOWN	41 REAR FENDER
6 CONTROL PANEL	24 HANDEL CAP	42 STEERING STEM BEARING
7 BODY SHELL	25 AXLE	43 CLAMP FOR TRANSAXLE
8 FRONT TYRE	26 SEAT POST SLEEVE	44 REAR CHASSIS WELDED SET
9 REAR TYRE	27 SPRING	45 FRONT CHASSIS WELDED SET
10 MOTOR & TRANSAXLE	28 RUBBER DUST COVER	46 QUICK RELEASE HANDLE
11 COUPLING BOLT	29 PCB	47 STEERING FOLDING MECHANISM
12 BUMPER	30 BUZZER	48 WELDED STEETING STEM
13 ANTI-TIPPING WHEEL	31 IGNITION KEY	49 SPACER FOR POTENTIAL METER
14 BUMPER BACKET	32 HORN BUTTON CIRCUIT COMBINATION	50 SLIDING SEAT POST WELDED SET
15 FIXING NUT	33 KEY BACKET CIRCUIT COMBINATION	61 ARMREST SET L/R
16 REAR BUMPER	34 POWER METER CIRCUIT COMBINATION	62 ATNI-TIP BRACKET
17 HANDLE	35 TURNING COUPLING	63 BUMPER HOLDER
18 SEAT BASE	36 MIDDLE FRAME SET	



WARRANTY DECLARATION

Quality/ Warranty Declaration

Products are to be fit for purpose and of excellent quality and performance. For valid warranty claims Heartway will, at their discretion, replace/ repair/ refund items mutually agreed to be defective.

Heartway's Warranty as Following:

- Frame: Two-year limited warranty
- Controllers: One-and-a-half-year limited warranty
- Electronic Components and Charger: One-year limited warranty
- Warranty Exclusion. The following items are not covered by warranty.

✧ Motor brushes	✧ Wheel Tires	✧ Arm Pads
✧ Seat Cushion	✧ Fuses / Bulbs	✧ Tiller Cover
✧ Rear Shroud	✧ Front Shroud	✧ Batteries and Consumable parts

Any damage or defect of any nature occurring from the misuse, abuse of the product, improper operation or improper storage is not to be covered. The warranty is to start from the date of arrival of our products.

HEARTWAY

HEARTWAY MEDICAL PRODUCTS CO., LTD.

NO. 6, ROAD 25, TAICHUNG INDUSTRIAL PARK,
TAICHUNG. TAIWAN R.O.C.408

www.heartway.com.tw

CARE AND MAINTENANCE

Scooters require a minimal amount of care and maintenance. The following areas require inspection and/or care and maintenance.

CLEANING AND DISINFECTION

- ⇨ Use a damp cloth and mild, non-abrasive cleanser to clean the plastic and metal parts of your scooter. Avoid using products that may scratch the surface of your scooter.
- ⇨ If necessary, clean your product with an approved disinfectant. Make sure the disinfectant is safe for use on your product before application.
- ⇨ Follow all safety instructions for the proper use of the disinfectant and/or cleaning agent before applying it to your product. Failure to comply may result in skin irritation or premature deterioration of upholstery and/or scooter finishes.

BATTERY TERMINAL CONNECTIONS

- ⇨ Make certain that the terminal connections remain tight and uncorroded.
- ⇨ The batteries must sit flat in the battery wells.
- ⇨ The battery terminals should face towards the inside of the scooter.

WIRING HARNESSES

- ⇨ Regularly check all wiring connections.
- ⇨ Regularly check all wiring insulation, including the charger power cord, for wear or damage.
- ⇨ Have your authorized dealer repair or replace any damaged connector, connection, or insulation that you find before using your scooter again.

AXLE BEARINGS AND THE MOTOR/TRANSAXLE ASSEMBLY

These items are all prelubricated, sealed, and require no subsequent lubrication.

WHEEL REPLACEMENT

If your scooter is equipped with pneumatic tires and you have a flat tire, you can have the tube replaced. If your scooter is equipped with a solid tire insert either the solid insert or the entire wheel must be replaced depending on the model. Contact your authorized dealer regarding replacement wheels for your scooters.

MOTOR BRUSHES

The motor brushes are housed inside of the motor transaxle/assembly. They should be inspected periodically for wear by your authorized dealer.

CONSOLE, CHARGER, AND REAR ELECTRONICS

- ⇨ Keep these areas free of moisture.
- ⇨ Allow these areas to dry thoroughly if they have been exposed to moisture before operating your scooter again.

STORING YOUR SCOOTER

If you plan on not using your scooter for an extended period of time, it is best to:

- ⇨ Fully charge its batteries prior to storage.
- ⇨ Disconnect the batteries from the scooter.
- ⇨ Store your scooter in a warm, dry environment.
- ⇨ Avoid storing your scooter where it will be exposed to temperature extremes.

Batteries that are regularly and deeply discharged, infrequently charged, stored in extreme temperatures, or stored without a full charge may be permanently damaged, causing unreliable performance and limited service life. It is recommended that you charge the scooter batteries periodically throughout periods of prolonged storage to ensure proper performance.

DISPOSAL OF YOUR SCOOTER

Your scooter must be disposed of according to applicable local and national statutory regulations. Contact your local waste disposal agency or authorized dealer for information on proper disposal of packaging, metal frame components, plastic components, electronics, and batteries.